



MOTOROLA

Communication
Client Guide

AirMobile
SOFTWARE PRODUCTS

Software for Lotus cc:MAIL
Wireless


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MOTOROLA

**AirMobile™ Wireless Comm Client for cc:Mail
User Guide
Version 1.0**

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Preface

Motorola's *AirMobile* Wireless for cc:Mail software is a powerful addition to Lotus cc:Mail Mobile that delivers efficient, fast and cost-effective wireless e-mail services.

With cc:Mail Mobile as a foundation, *AirMobile* Wireless for cc:Mail software enables companies to communicate wirelessly with a mobile sales force, work-at-home employees, traveling executives and others who have to send and receive messages, manage business contacts, coordinate calendars, and keep in constant contact, no matter where their current workplace happens to be.

The *AirMobile* Wireless for cc:Mail product is delivered as a complete package of client and server software, and contains all the software you need for wireless connectivity. No additional client or server licenses are required.

This guide gives you complete installation and configuration instructions for Motorola *AirMobile* Wireless Comm Client for cc:Mail on your personal computer. A companion guide describes the installation and configuration procedures for the *AirMobile* Wireless Comm Server for cc:Mail.

Optimized for the wireless environment.

Motorola *AirMobile* Wireless Comm Client for cc:Mail is optimized for the wireless environment. The software implements a powerful and efficient wireless transport and application protocol, enabling users of Lotus cc:Mail Mobile for Windows to send and receive e-mail messages quickly and easily. Wireless communication is hassle-free: no telephone lines, no elaborate credit card call sequences, no AT-type call setup configurations. Motorola's *AirMobile* software products transparently support major wireless wide area networks and operate on a variety of wireless modems/network adapters. With Motorola *AirMobile* software you simply turn on your wireless network adapter, load cc:Mail Mobile and you're connected to your cc:Mail server back in the office, uploading messages you have sent to your LAN mail server or downloading messages from your LAN mail server to your inbox.

You'll find that *AirMobile* software is not only efficient over the air, it runs quietly and efficiently as a background task in Windows. While *AirMobile* software does its job, you can continue to read or send e-mail messages or run other Windows applications.



Wireless software from the world leader in wireless technology

AirMobile Wireless Comm Client for cc:Mail is an important member of a growing family of Motorola's wireless solutions for the mobile work force. We are confident you will find this product to be both flexible and convenient for conducting your electronic communications via Lotus cc:Mail Mobile.

Other Sources of Information

This guide describes the functions and configuration requirements for Motorola *AirMobile* Wireless Comm Client for cc:Mail and is a companion document to the user guide for the *AirMobile* Wireless Comm Server for cc:Mail. In addition, there are other documents and resources that provide important information about *AirMobile* Wireless for cc:Mail and cc:Mail Mobile for Windows. These include the on-line Help systems for Motorola *AirMobile* software and Lotus cc:Mail Mobile and the Lotus cc:Mail for Windows User's Guide.

As a mobile user, you will want to minimize the amount of documentation you take with you when sending and receiving messages from remote locations. Fortunately, the on-line Help systems for both *AirMobile* software and cc:Mail Mobile for Windows are simple and robust, providing you step-by-step instructions for any feature of either product.

Conventions in this Guide

This guide uses print conventions to help you find the information you need to perform tasks more efficiently.

Text Type

Boldface type emphasizes words.

Italic type introduces and defines new terms and is used for the titles of publications.

Keys

The names of keys that you press are in uppercase letters, as in this example:

Press the CTRL key.

Type-in Commands

In statements of command syntax, **boldface** type indicates the characters you should actually type, and *italic* type designates the variables that you replace with other information. For example, in the following command, you type **SETUP** but replace *drive* and *directory* with the actual names:

*drive:\directory***SETUP**

Examples of commands in this guide use regular type, as shown here:

A:SETUP

1 Before You Begin

This chapter tells you how to install and run the software. Basic concepts and terminology are presented, together with a brief discussion of how *AirMobile* Wireless for cc:Mail differs from existing communication methods for cc:Mail Mobile for Windows.

What is *AirMobile* Wireless Comm Client for cc:Mail?

Motorola *AirMobile* Wireless Comm Client for cc:Mail is software that enables you to communicate with your LAN-based Lotus cc:Mail mail server via wide area wireless networks. The software operates in conjunction with *AirMobile* Comm Server software which must be installed on your cc:Mail server.

To run *AirMobile* Wireless for cc:Mail:

To run Motorola *AirMobile* Wireless Comm Client for cc:Mail, you must have the following:

- ☐ An 80386-class or higher IBM microcomputer, or 100-percent IBM-compatible computer.
- ☐ At least 4 Mbytes of RAM
- ☐ Up to 2 Mbytes of available disk space
- ☐ VGA, SVGA , or 8514/a display
- ☐ Wireless Network Adapter (e.g., InfoTac or Mobidem-like device)
- ☐ Wireless Network Service (e.g., Ardis, CDPD, DataTAC, Mobitex and RAM)
- ☐ Microsoft Windows, Version 3.1 or 3.11
- ☐ Lotus cc:Mail Mobile for Windows Release 2

Understanding Motorola AirMobile Wireless for cc:Mail

Before learning how to use Motorola AirMobile Wireless Comm Client for cc:Mail, you should understand some basic wireless concepts and terminology. The following section provides a brief introduction to Motorola AirMobile Wireless for cc:Mail software.

Note: For a full discussion of cc:Mail and cc:Mail Mobile terms and concepts and an overview of what you can do with cc:Mail, see the Lotus "cc:Mail Mobile for Windows Getting Started Guide" and the Lotus "cc:Mail for Windows Users Guide" manuals.

Communication Server

The *Communication Server* is a LAN-based PC computer that manages the wireless communications between wireless cc:Mail Mobile users and their LAN-based cc:Mail mailbox. The AirMobile Wireless Communication Server for cc:Mail provides wireless cc:Mail Mobile users with a wireless LAN access point.

Installing a *Communication Server* does not require cc:Mail administrator access or privileges. This helps enable quick, problem-free implementations. The *Communication Server* requires a 80386-class or higher IBM microcomputer, or 100-percent IBM-compatible computer with Windows 3.1 or 3.11 operating system.

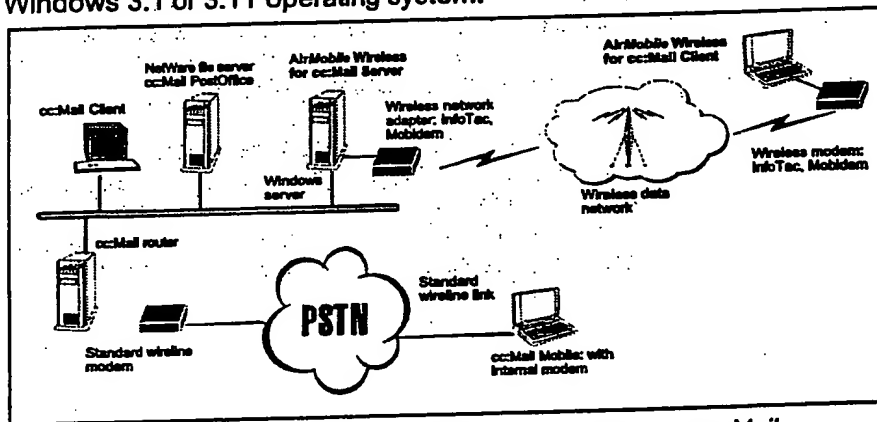


Figure 1-1 AirMobile Wireless Comm Server and Client in a cc:Mail environment

User Profile Database

The *User Profile Database* contains one or more entries which define *AirMobile* Wireless cc:Mail Mobile users. A User Profile Database exists on both the Communication Server and the *AirMobile* Client. The User Profile Database on the Communication Server is automatically updated by the User Profile Database on the *AirMobile* Client to reflect changes and preferences of the user. In other words, Motorola lets the actual users in the field control important filtering and other configuration information.

Wireless Registration

Wireless Registration defines the *AirMobile* optimized application protocol. This enables efficient, secure and authenticated wireless communication between a cc:Mail Mobile client and a LAN-based cc:Mail PostOffice.

Filtering

Message filtering is a critical component for mobile applications, particularly those that rely on communication interfaces which have limited throughput and tariffs based on time or usage. This is true for all wireless wide-area networks.

For maximum efficiency and economy with wireless networks, Lotus cc:Mail Mobile and Motorola *AirMobile* Wireless for cc:Mail software provide a complementary set of message filters.

Although *AirMobile* Wireless for cc:Mail software preserves the familiar filtering methods of cc:Mail and cc:Mail Mobile, Motorola adds filters to help make your wireless connections more efficient and less expensive. For example, *AirMobile* software lets you select a cut-off size for messages, accepting the first few hundred bytes and cutting off the rest. You can also control whether you'll receive text or binary attachments (for graphics, spreadsheets, etc.).

Lotus cc:Mail Mobile for Windows implements filters which qualify messages before they are downloaded to your laptop computer. Motorola *AirMobile* Wireless for cc:Mail software directly implements these same filters. These filters include message priority, message date, message size, message subject and message originator

In addition, Motorola AirMobile Wireless Comm Client for cc:Mail implements upload filters as well. You can change filters remotely without having to find your LAN administrator, altering your message priority and message size filters from your remote portable. With this feature, messages which you send (stored in your Outbox) are not transmitted wirelessly unless they pass your message priority and size filters. These "rejected" messages will remain in your Outbox waiting to be sent via another communication medium (e.g., a direct LAN connection).

2 Installing and Configuring Motorola AirMobile Wireless Comm Client for cc:Mail

This chapter provides instructions for installing and configuring Motorola AirMobile Wireless Comm Client for cc:Mail on your personal computer.

Installing Motorola AirMobile Wireless Comm Client for cc:Mail

Follow the instructions in this section to install Motorola AirMobile Wireless Comm Client for cc:Mail.

Important: Before installing Motorola AirMobile Wireless Comm Client for cc:Mail, Lotus cc:Mail Mobile for Windows Release 2 must be installed.

1. If Lotus cc:Mail Mobile is not installed on this machine, STOP this installation procedure and install cc:Mail Mobile first.
2. Installation preparation

To install Motorola AirMobile Wireless Comm Client for cc:Mail, you must know the following:

- ☐ The directory path containing the cc:Mail Mobile program files (e.g., C:\CCMOBILE)
- ☐ The local directory path containing your cc:Mail Mobile PostOffice (e.g., C:\CCMOBILE\CCDATA1)
- ☐ The logon name for the cc:Mail Mobile user
- ☐ The logon password for the cc:Mail Mobile user
- ☐ The local wireless radio ID for your cc:Mail Mobile PC
- ☐ The remote wireless radio ID for your Motorola AirMobile Wireless Communication Server for cc:Mail
- ☐ The COM port your PC will use to communicate with your wireless radio (e.g., COM1, COM2)

3. Install Motorola AirMobile Wireless Comm Client for cc:Mail

Note: make sure that neither cc:Mail Mobile or cc:Mail Background are running!

- a) Start Windows (if it isn't currently running)
- b) Insert the Motorola AirMobile Wireless Comm Client for cc:Mail Disk in your 3.5" floppy drive
- c) Choose Run from the File menu
- d) Type the SETUP command:

*drive:*SETUP

For example, if the disk is in drive A:, type:

A:SETUP

After a few moments, a "Setup" dialog menu appears, prompting you for the installation directory.

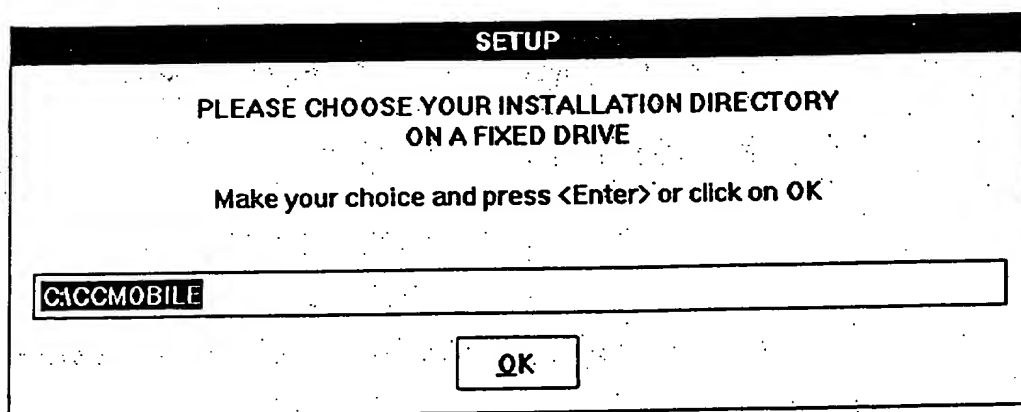


Figure 2-1. The Setup dialog menu

- e) Enter the same installation path as used for Lotus cc:Mail Mobile.

After a few moments the installation program will prompt you for a path to install the Motorola AirMobile Wireless Comm Client for cc:Mail.

Important: You must use the same path as used by cc:Mail Mobile (e.g., c:\ccmobile). Failure to use the same installation path will cause difficulties with operation.

The installation process requires an existing cc:Mail Mobile program (CCBKGRND.EXE) file to be renamed to CCLOTUS.EXE. The following alert is displayed. Select "Yes" to continue the installation.

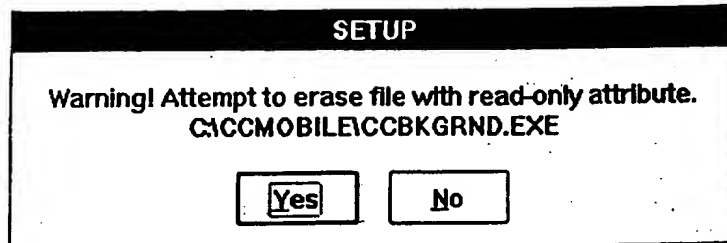


Figure 2-2 Installation alert.

When the installation is complete, a new Program Group will be created with two AirMobile icons (see figure 2-3).

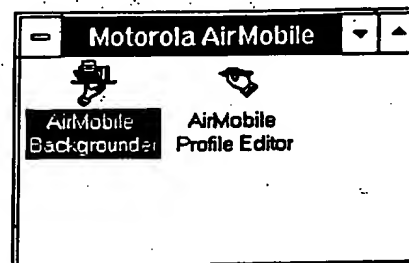


Figure 2-3: Windows program group created during installation

IMPORTANT: This installation process renames the Lotus cc:Mail Background (CCBKGRND.EXE) to CCLOTUS.EXE. If you execute cc:Mail Background directly from your Windows Program Manager, you must modify the properties of your Lotus cc:Mail Background icons. Highlight the Lotus cc:Mail Background icon, press Alt/Enter and modify the command line to reflect the CCLOTUS.EXE.

Configuring Motorola AirMobile Wireless Comm Client for cc:Mail

Follow the instructions in this section to configure Motorola AirMobile Wireless Comm Client for cc:Mail using the Motorola AirMobile Profile Editor.

The AirMobile Profile Editor is used to:

- ☐ Configure the Motorola AirMobile software with pertinent information regarding your cc:Mail Mobile user account (e.g., User name, Password, PostOffice path).
- ☐ Configure the Motorola AirMobile software with system configuration information (e.g., wireless radio addresses, COMM ports, etc.).

1. Launch "Profile Editor." In Windows, double-click the "AirMobile

Profile editor" icon .

2. Confirm to build the AirMobile User directory.

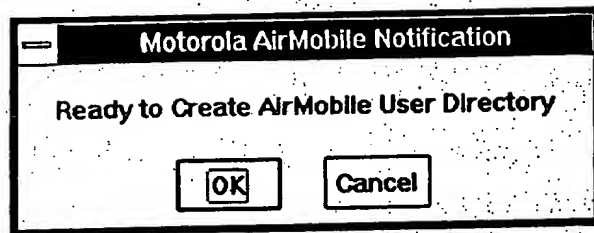


Figure 2-4: The AirMobile Wireless for cc:Mail notification screen.

When launched for the first time, the AirMobile Profiler will automatically build a database to retain essential information. Click "OK" to continue. A blank user profile screen is displayed (Figure 2-5).

Figure 2-5: User Profile Configuration screen.

3. Complete the "Profile Editor" screen.

The "Profile Editor" configuration screen is displayed. Enter the information as described below.

Use the TAB key to move your cursor from one field to another.

User Name: Enter your cc:Mail Mobile logon name, replacing "New User".

User Password: Enter your cc:Mail Mobile logon password.

Note: The password field is masked to prevent your password from being viewed.

PostOffice Name: Enter the name of the PostOffice associated with your cc:Mail Mobile account (e.g., ACME-PostOffice).

PostOffice Path: Enter the path where your cc:Mail Mobile postoffice resides (e.g., c:\ccmobile\ccdata1). If you are not sure of your

PostOffice Path, you can find the path displayed on the cc:Mail Mobile logon menu.

Msg Truncation Size (optional): Defines how to process messages which are rejected by ALL filter settings. If you would like to receive a portion of text messages which are rejected by your filter settings, enter the number of bytes (characters) you would like to receive.

Note: This process marks messages as "Read" and prevents downloading of the entire message at a later time.

Remote Radio ID: Enter the Radio ID of the AirMobile Communication Server for cc:Mail.

Enable/Disable: If "enabled" AirMobile will manage the cc:Mail Mobile Outbox for this user, automatically sending messages which pass filter settings to the Communication Server. When "enabled" AirMobile will ensure messages are automatically downloaded to your cc:Mail Mobile account from the server automatically, if the message passes the filter settings defined by the client.

Text Attach:

(optional) Check this box if you want to receive TEXT portions of messages sent to you. See "Setting AirMobile Filters" for more details.

File Attach:

(optional) Check this box if you want to receive file attachments which are sent to your Inbox (e.g., spreadsheet or word-processing files). See "Setting AirMobile Filters" for more details.

Local Radio ID: This is a READ-ONLY field on this screen which displays the local Radio ID defined for the cc:Mail Mobile station.

Note: This field is defined in the Profile Editor's "System Configuration" menu.

The screenshot shows a window titled "- AirMobile Profiler Utility -". It has a menu bar with "File", "Edit", and "Help". Below the menu bar is a toolbar with icons for opening, saving, adding, deleting, and help. The main area is titled "General Information" and contains several fields:


- User Name: Mitch Hansen
- User Password: (masked with asterisks)
- PostOffice Name: ACME-PostOffice
- PostOffice Path: c:\ccmobile\ccdata1
- Msg Truncation Size: (empty field)
- Remote Radio ID: 15002222
- Local Radio ID: (empty field)

To the right of these fields are three options:

- ☒ Enable
- ☐ Disable
- ☒ Text Attach
- ☒ File Attach

At the bottom of the window, the status bar shows "Ready" on the left and "NUM" on the right.

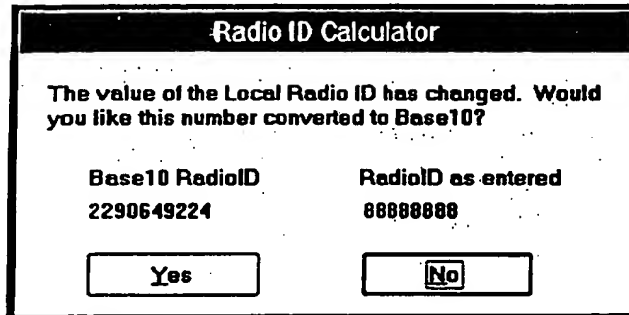
Figure 2-6: Example of completed User Profile entry.

4. Save the User Profile record.
Save the User Profile record by selecting "Save" from the File pull-down menu or by clicking on the "Save" icon on the tool bar. 
5. Converting wireless modem and network adapters to Base-10
Motorola AirMobile for cc:Mail records the identification numbers of wireless modems and network adapters in normal numerical format. Because some wireless modems and adapters provide their ID numbers in hexadecimal format, Motorola AirMobile software provides a built-in hexadecimal Radio ID Calculator to assist administrators and users in correctly configuring these Radio IDs. Anytime a hexadecimal radio ID value is entered or changed, whether on the server's local network adapter or the user's wireless modem, you will be asked if you would like to convert your Radio ID to a Base-10 value. Select YES. Note that the default option is NO, the value entered for normal Base-10 numbers.

Wireless modems manufactured for DataTAC networks (e.g., Ardis) are commonly stamped with radio IDs in hexadecimal format. If you

are using these hexadecimal IDs, convert this number before proceeding by clicking on the YES button.

If you are using the MOBITEK network, select NO.




The dialog box is titled "Radio ID Calculator". It contains the text: "The value of the Local Radio ID has changed. Would you like this number converted to Base10?". Below this text, there are two columns of information. The first column is labeled "Base10 RadioID" and shows the value "2290649224". The second column is labeled "RadioID as entered" and shows the value "88888888". At the bottom of the dialog, there are two buttons: "Yes" and "No".

Base10 RadioID	RadioID as entered
2290649224	88888888

Yes No

Figure 2-7 The Radio ID calculator menu.

6. Setting the local "System Configuration".
Display the "System Configuration" menu by selecting "System Configuration" from the Edit pull-down menu or by clicking on the "System Configuration" icon  on the tool bar.

- AirMobile Profiler Utility -

File Edit Help

Local Configuration

Local Radio ID: 15008888

Scheduler Cycle Time: 10

Inter-User Time-out: 1

Communication Port: COM1

Ready NUM

Figure 2-8: System Configuration menu


The "System Configuration" screen is displayed. Enter the information as described below.

Local Radio ID: Enter the Radio ID of the wireless network adapter you will be using to communicate from your laptop computer.

Scheduler Cycle Time: Defines the number of seconds to wait between Outbox checking. For example, if you enter "60" in this field, your Outbox will be checked every 60 seconds for the presence of messages waiting to be sent. Note that 30 seconds is the minimum scheduler cycle time.

Inter-User Time-out: Defines the number of seconds to wait between checking the next user's Outbox.

Communication Port: Defines the communication interface used by the wireless network Adapter for your laptop computer. Click on the down-arrow and select one of the following values: COM1, COM2, COM3 or COM4.

4. Save the "System Configuration" information.
Save the "System Configuration" by selecting "Save" from the File pull-down menu or by clicking on the "Save" icon  on the tool bar.
5. Converting wireless modem and network adapters to Base-10.
Motorola AirMobile for cc:Mail records the identification numbers of wireless modems and network adapters in normal numerical format. Because some wireless modems and adapters provide their ID numbers in hexadecimal format, Motorola AirMobile software provides a built-in hexadecimal Radio ID Calculator to assist administrators and users in correctly configuring these Radio IDs. Anytime a hexadecimal radio ID value is entered or changed, whether on the server's local network adapter or the user's wireless modem, you will be asked if you would like to convert your Radio ID to a Base-10 value. Select YES. Note that the default option is NO, the value entered for normal Base-10 numbers.

Wireless modems manufactured for DataTAC networks (e.g., Ardis) are commonly stamped with radio IDs in hexadecimal format. If you are using these hexadecimal IDs, convert this number before proceeding by clicking on the YES button.

If you are using the MOBITECH network, select NO.

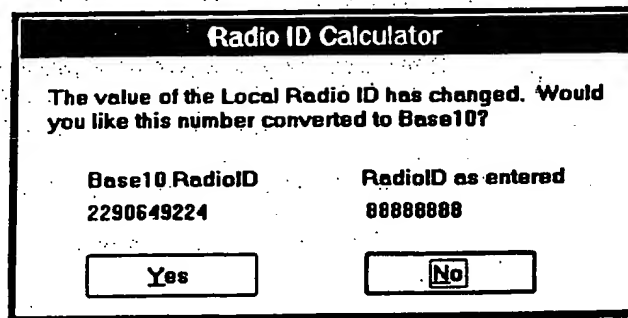


Figure 2-9 The Radio ID calculator menu.

6. Exit the AirMobile Configuration Tool.
Exit the "AirMobile Configuration Tool" by selecting "Exit" from the File pull-down menu or simply double-click on the System menu.

Configuring Lotus cc:Mail Mobile for AirMobile Wireless Comm Client Communications

Follow the instructions in this section to configure your Lotus cc:Mail Mobile for Windows software to communicate wirelessly via Motorola AirMobile Wireless Comm Client for cc:Mail communication software.

This section describes how to define a new *"Mobile Setup"* and *"Location Setup"* within cc:Mail Mobile to enable the Motorola AirMobile Wireless Comm Client for cc:Mail.

Defining a Mobile Setup in cc:Mail Mobile

Overview

To enable your Lotus cc:Mail Mobile for Windows software to communicate via Motorola AirMobile Wireless Comm Client for cc:Mail, you must define a new *"Mobile Setup"* and enable the *"Mobile Setup"* through either a new *"Location Setup"* or by redefining an existing *"Location Setup"*.

The instructions below define a new wireless Mobile Setup called *"AirMobile"* and a new Location Setup called *"Motorola AirMobile Wireless."*

1. Launch Lotus cc:Mail Mobile for Windows.
In Windows, double-click the *"Lotus cc:Mail Mobile"* icon.
2. Select *"Mobile Setup"* from the Mobile menu.

Mobile Setup

Home Post Office

Name:

Calling Card Number:

Retries: Interval: minute(s)

☐ Save cc:Mail Background session log

☐ Activate diagnostics in cc:Mail Background

☐ Activate audio tone on session completion

☐ Enable restricted display in cc:Mail Background

☐ Accept mail connections

☐ Confirm to Process System Updates

Figure 2-10 Lotus cc:Mail Mobile setup menu

3. Choose the "Edit Address" from the "Mobile Setup" dialog button to display the "Home Post Office Setup" dialog.
4. Complete the "Home Post Office Setup" Dialog.
 - a) Enter the name of your home PostOffice
 - b) Enter any relevant comment
 - c) Choose "Wireless" as the "Address Type"
 - d) Enter "AirMobile" as the "Address"
 - e) Click on the "Add" button
 - f) Click "OK" to return to the "Mobile Setup" dialog
 - g) Click "OK" to return to your cc:Mail Mobile Inbox

Figure 2-11 Lotus cc:Mail Home Post Office setup menu.

Defining a Location Setup in cc:Mail Mobile

This section describes how to define and configure *AirMobile* Client for cc:Mail via Lotus cc:Mail's "Location Setup". The result is a "Location Setup" that, when selected, will allow you the freedom and convenience of wireless connectivity with your cc:Mail LAN server.

1. Define a new location called "Motorola AirMobile Wireless".
 - a) Choose "Location Setup" from the "Mobile" menu to display the "Location Setup" dialog.

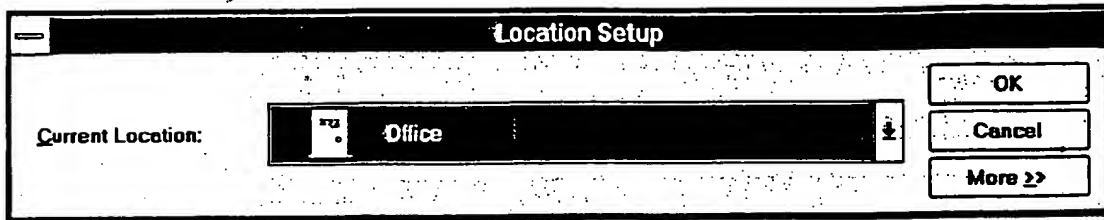


Figure 2-12 from cc:Mail Mobile for Windows.

- b) Click the "More" button to the detailed cc:Mail Mobile for Windows Location Setup dialog menu.

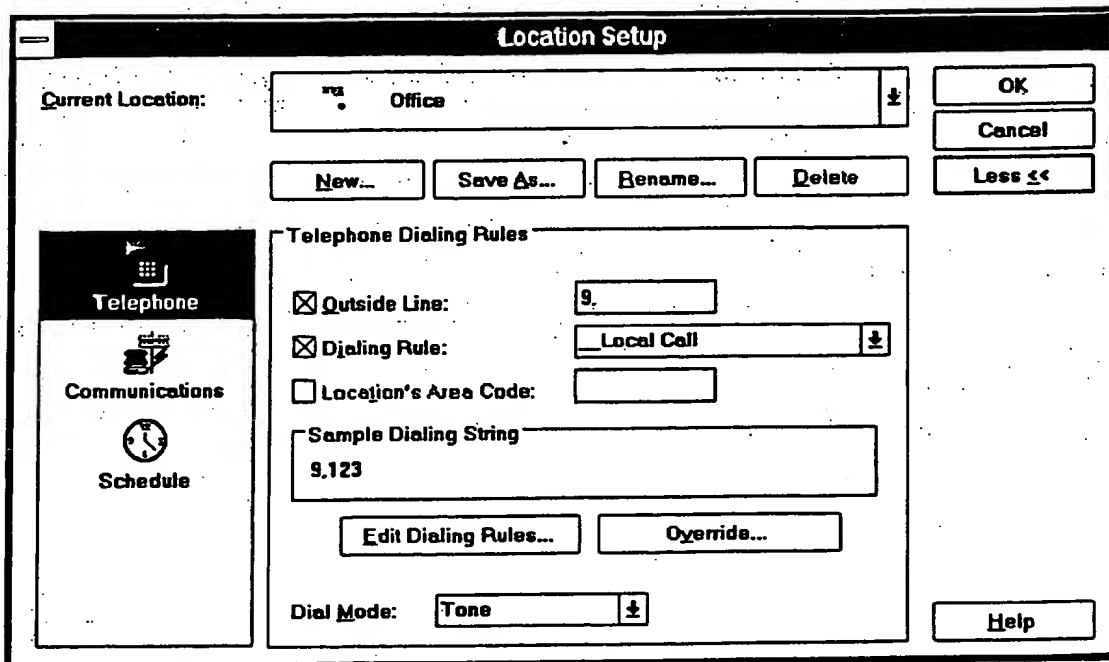


Figure 2-13 Detailed cc:Mail Mobile for Windows Location Setup dialog

- c) Choose "New" from the "Location Setup" dialog.

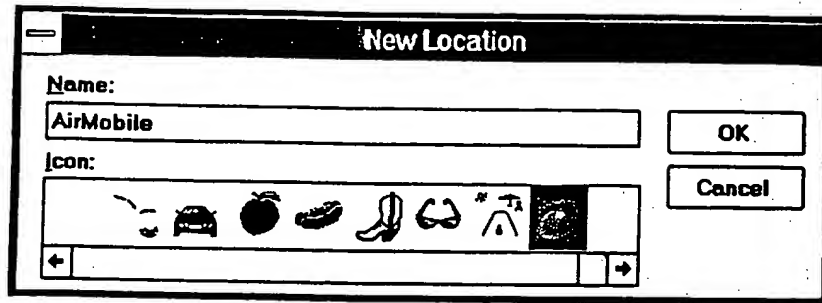


Figure 2-14 cc:Mail Mobile for Windows New Location dialog

- d) Enter "Motorola AirMobile Wireless" in the "Name" field.
- e) Choose an icon from the scrollable list of choices. The "Galaxy" icon is appropriate for AirMobile Wireless, so it is used in examples. You can find the "Galaxy" icon at the end of the scroll list.
- f) Choose "OK" after highlighting a location icon. OK also returns you to the "Location Setup" dialog.
- g) Choose the "Communications" icon from the left-hand column of "Location Setup" dialog.

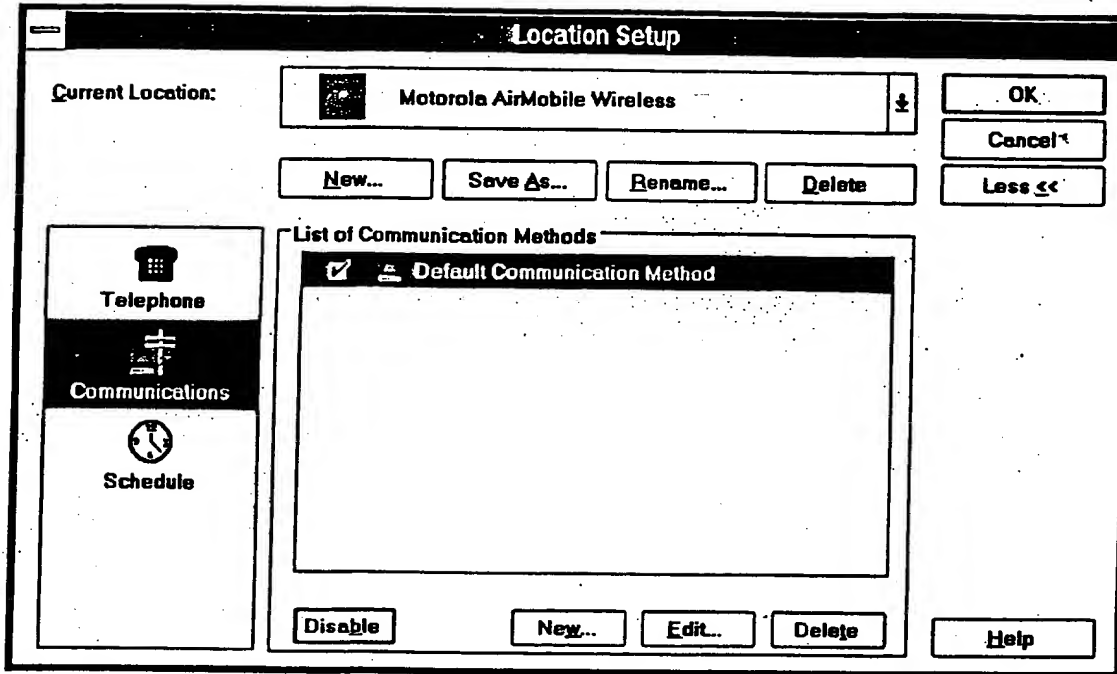


Figure 2-15 Location setup

- h) Define a new "Communication Method" by clicking the "New" button in the "List of Communication Methods" group box near the bottom of the dialog.

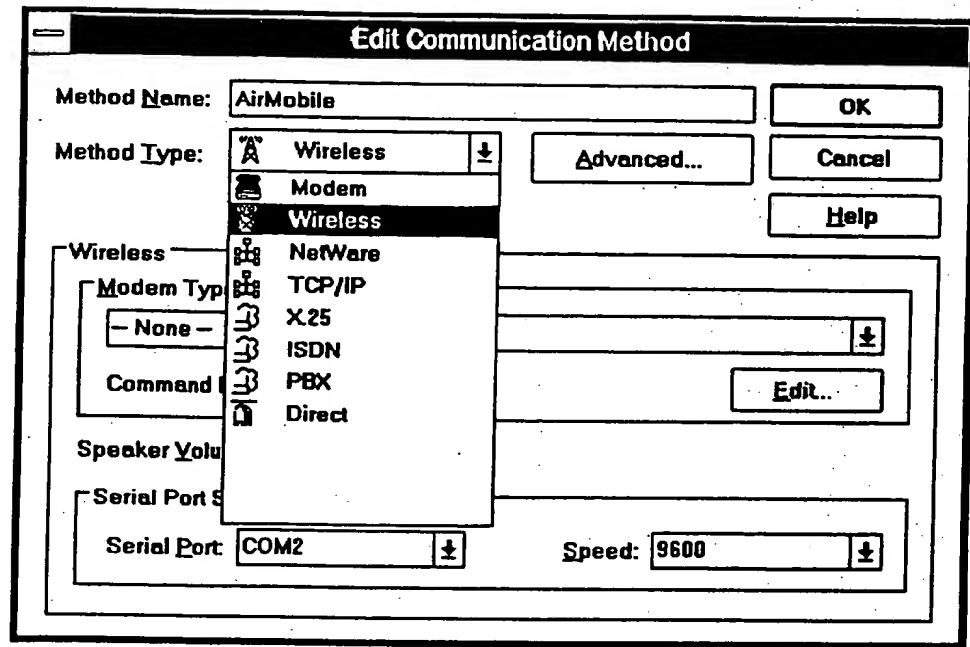


Figure 2-16 cc:Mail Mobile for Windows Edit Communication Method dialog.

- l) Enter "AirMobile" as the "Method Name".
- j) Choose "Wireless" from the "Method Type" drop-down list.
- k) Click "OK" to return to the "Location Setup" dialog.

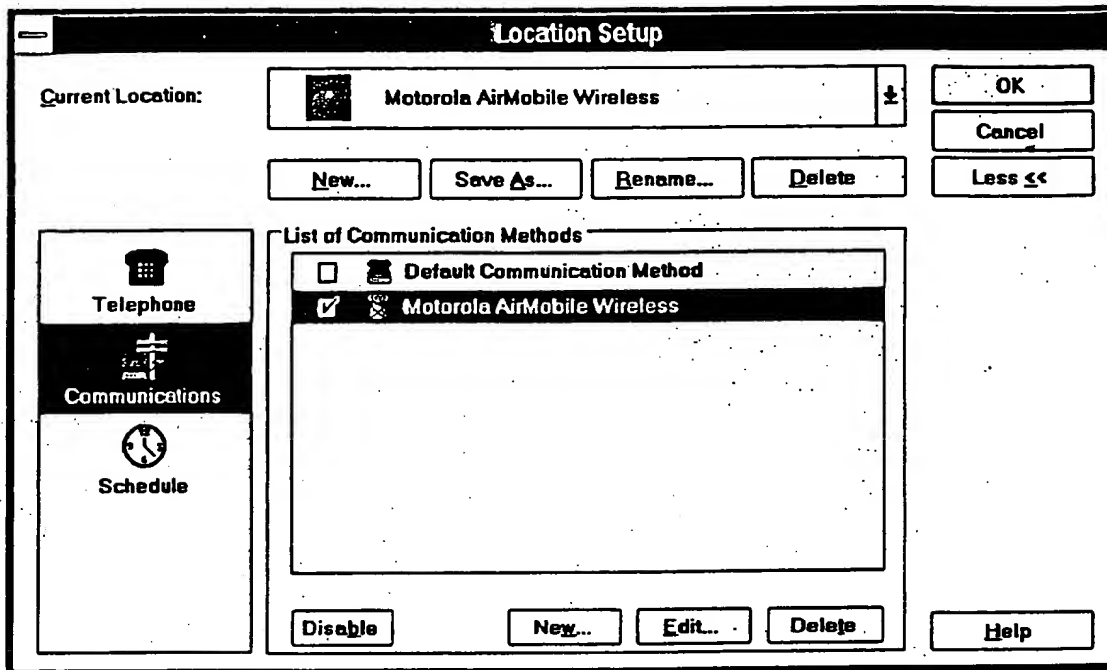


Figure 2-17 cc:Mail Mobile for Windows Location Setup dialog.

- l) Disable other communication methods: from the "Location Setup" dialog, select each "Communication Method" which is **not** "AirMobile" and click "Disable." This disables these alternate methods when using the AirMobile Wireless method, and leaves AirMobile as the only "Communication Method" enabled for the Motorola AirMobile Wireless location.
 - m) Click "OK" to return to your cc:Mail Mobile Inbox.
2. Running Motorola AirMobile Wireless Comm Client for cc:Mail.

Once you have defined the Motorola AirMobile Wireless Location and Mobile Setup definitions, simply select the "Motorola AirMobile Wireless" Location from within the cc:Mail Mobile "Mobile" menu to launch the AirMobile Wireless Comm Client for cc:Mail.

Refer to chapter 3, "Running Motorola AirMobile Wireless Comm Client for cc:Mail" for detailed information.

3 Running Motorola AirMobile Wireless Comm Client for cc:Mail

This section describes how to run Motorola AirMobile Wireless Comm Client for cc:Mail and defines the user interface.

Overview

Motorola AirMobile Wireless for cc:Mail software operates much like Lotus' cc:Mail Background. It downloads messages (which pass your download filters) from your LAN-based inbox to your cc:Mail Mobile inbox. The Client software also uploads messages from cc:Mail Mobile's Outbox to your LAN-based mail server for delivery.

The AirMobile Wireless for cc:Mail product is a complementary addition to your cc:Mail Mobile program. It extends your cc:Mail Mobile client with new wireless communication capabilities previously not possible, and at the same time does not disrupt or prevent the use of any existing cc:Mail Mobile communication method.

While Motorola AirMobile Wireless Comm Client can be compared to Lotus' cc:Mail Background, there are also key differences, some of which may change your perspective of the mobile e-mail model. These key differences are explained below.

☐ Connected without maintaining a session

Motorola AirMobile Wireless for cc:Mail software provides a secure and authenticated virtual wireless communication channel between your laptop and your LAN-based cc:Mail server. This virtual communication channel enables messages to be immediately downloaded when they are received, or uploaded when they are sent. This eliminates the batch mode of operation used by cc:Mail Background.

☐ Messaging models: client poll and server push

Motorola AirMobile for cc:Mail software implements both the traditional e-mail "client poll" and the more efficient "server push" models of message delivery. cc:Mail Background implements the "client poll" model only.

With Motorola *AirMobile*, messages are "pushed" out to your portable PC from the server over the wireless network; you do not have to constantly call in to check for messages. This implementation of "server push" eliminates unnecessary communication between the client and server, minimizing communication costs and artificial delivery delays.

When you send a message while Motorola *AirMobile* is running, the message will be immediately processed from your outbox, assuming it passes your upload filters, and be delivered to your LAN-based cc:Mail server for ultimate delivery.

When a message arrives for you in your LAN-based cc:Mail Inbox, Motorola *AirMobile* software will immediately download the message to your laptop, assuming it passes your download filters, placing it in your cc:Mail Mobile Inbox.

☐ **Server based filters for downloads**

AirMobile Wireless Comm Server maintains a copy of the filter settings defined by each Motorola *AirMobile* Client. All filter changes made using your client software will be propagated to your registered account on your Motorola *AirMobile* Communication Server for cc:Mail—and you do not need a LAN administrator to make the changes.

Server-based filters define the criteria which must be satisfied before a message will be "pushed out" to a registered client. By contrast, cc:Mail Background does not support server-based filtering nor does it support server-push message handling.

☐ **Client based filters for uploads**

Motorola *AirMobile* uses several of the key filter settings defined by you as upload filters. These filters control how the messages you send are uploaded from your cc:Mail Mobile Outbox. Messages which pass your upload filters will be uploaded via Motorola *AirMobile*. Messages which do not pass your upload filters will remain in your Outbox waiting to be sent when you connect directly to the LAN again or use another communication method (e.g. wireline modem). Upload filters are message priority and message size.

Lotus cc:Mail Background does not apply any filters to the upload process.

☐ **Granularity filtering for message download**

Motorola *AirMobile* allows you to be selective about how much of a message you want to receive. You can download specific portions of messages, the first 100 characters, for example, even if the messages would not pass other filter criteria. This enables you to receive the portion of a message which is most valuable: the first part of a text message, a file attachment or text notes.

☐ **User Interface**

The Motorola *AirMobile* user interface summarizes the number of messages sent and received, the current state of communications and gives you a log window that documents all major wireless communication events.

Launching Motorola *AirMobile* Wireless Comm Client for cc:Mail

Motorola *AirMobile* Wireless Comm Client for cc:Mail can be launched automatically by cc:Mail Mobile or directly from the Windows Program Manager.

Auto-Launch via cc:Mail Mobile

Motorola *AirMobile* Wireless Comm Client for cc:Mail will automatically launch when cc:Mail Mobile is launched if you have defined Motorola *AirMobile* Wireless as your default "*Location Setup*".

Manual Launch via cc:Mail Mobile

If Motorola *AirMobile* Wireless Comm Client is not already running, it will be automatically launched when you change the "*Location Setup*" within cc:Mail Mobile.

Manual Launch from Windows

Motorola *AirMobile* Wireless Comm Client for cc:Mail can be manually launched from Windows by simply double-clicking on the *AirMobile* Backgrounder Icon.

Upon launching Motorola AirMobile for cc:Mail, you will see a copyright "splash screen" which disappears after about 5 seconds (figure 3-1).

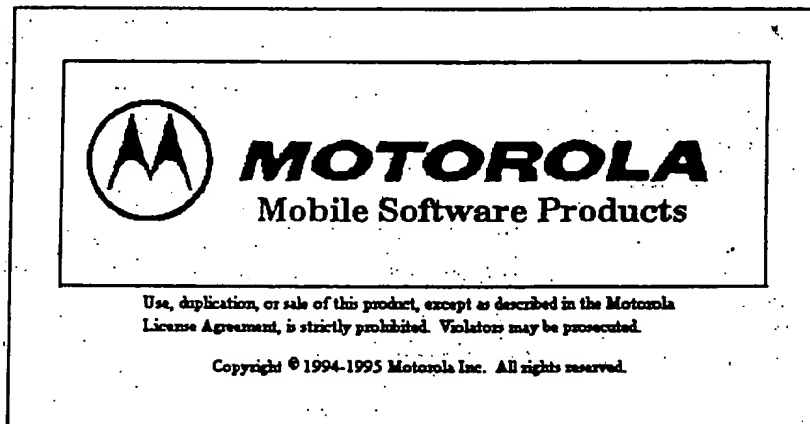


Figure 3-1: Motorola AirMobile Wireless Comm Client for cc:Mail Splash Screen.

The splash screen will be replaced by the Motorola AirMobile Wireless Comm Client for cc:Mail main dialog (figure 3-2)

Motorola AirMobile Wireless for cc:Mail Interface Description

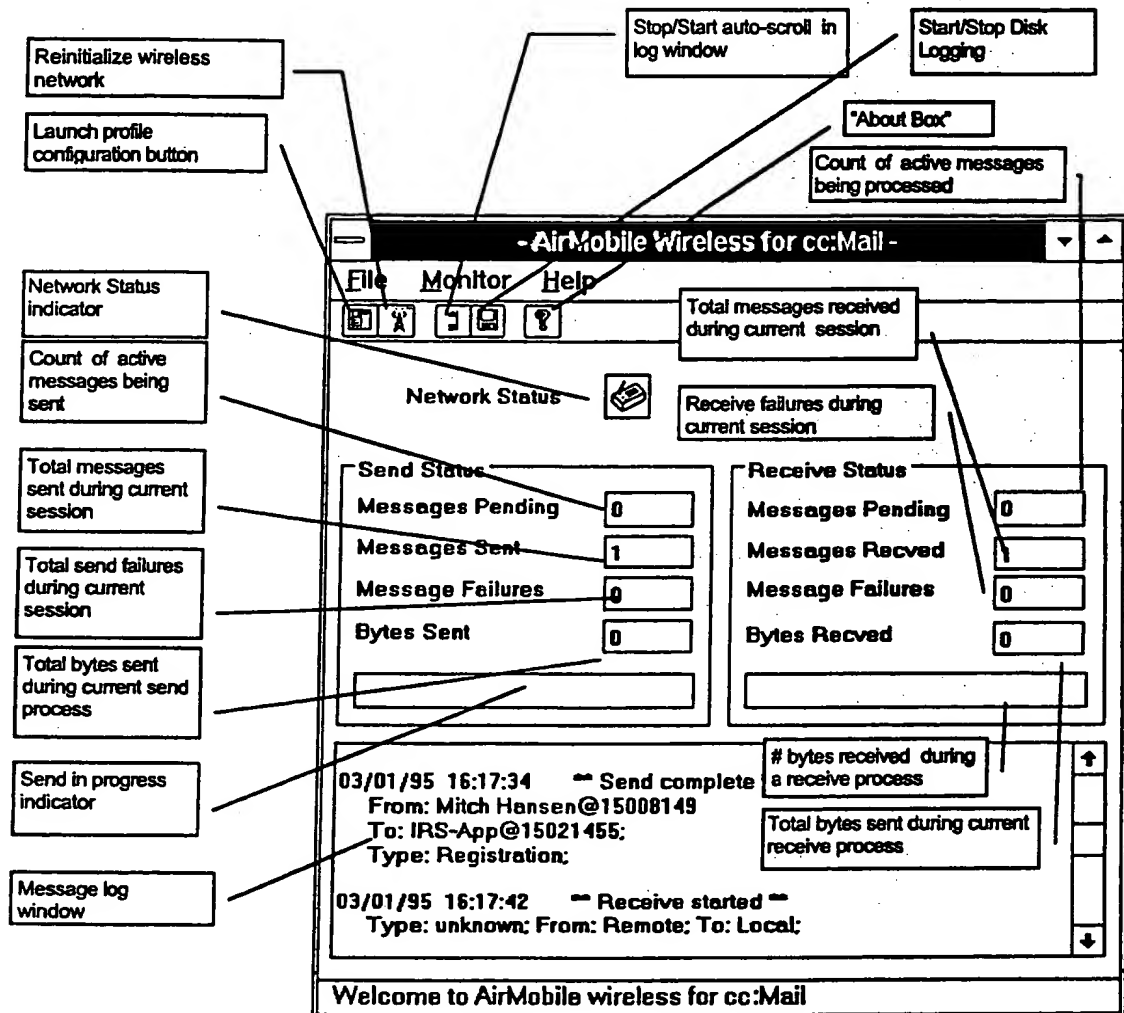


Figure 3-2 The AirMobile for cc:Mail main dialog screen.

AirMobile Wireless Client for cc:Mail Controls

The Motorola AirMobile Wireless Comm Client for cc:Mail Main Menu provides several key functions to help manage your communication interface.

Launch Profiler

Launches the Profile Configuration Tool, enabling you to define your cc:Mail Mobile user logon information and granularity filters.

Initialize Wireless Network

Click on this button (if not already depressed) to reinitialize the network connection after a failure.

Stop/Start auto-scroll of log window

Click this button to stop and start the auto-scroll feature of the log window. When turned off, the button appears depressed (grayed out) and the auto-scroll feature will be disabled. This enables you to scroll back through the log window to review communication activities without the distraction of the window jumping forward with new events.

New log events will continue to be appended to the bottom of the window in either mode on or off.

Stop/Start Disk Logging

When depressed, messages displayed in the log window are also written to a disk log file called curlog.txt. When in the up position, messages are displayed in the log window but not written to disk.

The log file curlog.txt will grow to 30,000 bytes before being automatically rolled over to the file prevold.txt. When the curlog.txt file is rolled over, the contents of prevlog.txt are lost.

About button

Click this tool button to display detailed information about the application, including version number.

Communicating between the Client and Communication Server

Prerequisites



To send or receive messages using Motorola *AirMobile* Wireless Comm Client for cc:Mail you or your e-mail administrator must have installed and configured both Lotus cc:Mail Mobile for Windows Release 2 and Motorola *AirMobile* Wireless Comm Client for cc:Mail. See sections 2 and 3 of this manual for instructions on installing and configuring Motorola *AirMobile* Wireless Comm Client for cc:Mail.

In addition, you or your LAN administrator must have installed and configured a cc:Mail e-mail server and a Motorola *AirMobile* Wireless Communication Server for cc:Mail.

To begin wireless communications, do the following:

1. Launch Motorola *AirMobile* Client for cc:Mail

- a) When first launched, the Motorola *AirMobile* logo is displayed for approximately 5 seconds. The logo disappears and the *AirMobile* Wireless for cc:Mail Main Menu is displayed.
- b) Your cursor will change to an "hour glass" shape while *AirMobile* initializes your communication port and verifies that you are within network coverage.

During the initialization, the "network status indicator" has a red slash through it  signifying that your wireless network connection is not active. After initializing the communications port and determining that the wireless network is accessible, the red slash disappears .

If the initialization fails or the wireless network is not accessible, the red slash will continue to be displayed, even after the "hour glass" mouse returns to a pointer.

2. Verify a successful registration was sent

Upon successful launch and initialization (step 1, above), the *AirMobile* Wireless Comm Client for cc:Mail will send a registration request to the *AirMobile* Wireless Comm Server whose address is

defined in the "Remote Radio ID" field in your profiler configuration utility.

Below is an example of a successful "registration send" transaction.

Note: *Note that both a Send Started message and a Send Completed message must be displayed before a completed transmission is received.*

2/15/95 10:15 *** SEND STARTED ***
 From: Mitch Hansen@999999999
 To: IRS-App@888888888
 Type: Registration

2/15/95 10:16 *** SEND COMPLETED ***
 From: Mitch Hansen@999999999
 To: IRS-App@888888888
 Type: Registration

Note: *If a registration send is not confirmed within 5 minutes from a "send completed" the client will submit another registration request.*

3. Verify that a successful registration was received.

Upon the successful send of a registration request (step 2, above), the AirMobile Wireless Communication Server sends a registration confirmation back to the client. The return of the registration confirms that you successfully communicated a message to the Communication Server, your cc:Mail password is correct and your cc:Mail PostOffice is on-line.

Upon receiving a registration transaction, your client becomes fully registered. Once fully registered your client may send messages, send profile change transactions or simply listen to the network for messages to be "pushed" to your client by the Communication Server.

Below is an example of a successful "registration receive" transaction.

2/15/95 10:15 *** RECEIVE STARTED ***
Type: Unknown; Host: Unknown;

2/15/95 10:16 *** RECEIVE COMPLETED ***
From: IRS-App088888888
To: Mitch Hansen099999999
Type: Registration

Note: If your client is inactive (not having sent or received messages) for 20 minutes, your client will automatically re-register with the Communication Server.

4. Sending/Transmitting e-mail messages.

To send a message wirelessly, simply use the same procedure as with Lotus cc:Mail Mobile. Use cc:Mail Mobile to compose a message which will be stored in the Outbox. Once you are registered (steps 2 & 3 above) the AirMobile Client software will automatically transfer messages that pass your upload filters on to your Communication Server, eliminating the need to find a phone and manually issue a SEND/RECEIVE command.

Below is an example of a successful "message send" transaction.

2/15/95 10:19 *** SEND STARTED ***
From: Mitch Hansen099999999;
To: Gene Eggleston088888888;
Subject: Important Meeting;
Type: ccMail Msg; MsgID: 1901;

2/15/95 10:20 *** SEND COMPLETED ***
From: Mitch Hansen099999999;
To: Gene Eggleston088888888;
Subject: Important Meeting;
Type: ccMail Msg; MsgID: 1901;

Note that both a Send Started message and a Send Completed message must be displayed before a completed transmission is received.



5. Receiving e-mail messages.

Receiving mail messages is easier than ever, once you are registered (steps 2 & 3 above), the Client software will automatically receive the messages that pass your download filters from the Communication Server.

Below is an example of a successful "message receive" transaction.

2/15/95 10:20 *** RECEIVE STARTED ***

From: Mitch.Hansen@999999999;
To: Gene.Eggleston@888888888;
Subject: Important Meeting;
Type: ccMail Msg; MsgID: 1901;

2/15/95 10:21 *** RECEIVE COMPLETED ***

From: Mitch.Hansen@999999999;
To: Gene.Eggleston@888888888;
Subject: Important Meeting;
Type: ccMail Msg; MsgID: 1901;

4 Message Filtering

Introduction

This section describes message filtering. Please take the time to read and fully understand this section. Knowing how to use filter options will save you time and money.

Overview

Message filtering is a critical component of any mobile application that uses communication interfaces which have limited throughput and tariffs based on time or usage. This is especially true for wireless wide-area networks. To maximize the efficiency and usefulness of information downloaded over wireless wide-area networks, Lotus cc:Mail Mobile and Motorola AirMobile Wireless Comm Client for cc:Mail provide a complementary set of message filters.

Lotus cc:Mail Mobile for Windows implements a set of filters which it uses to qualify messages before they are downloaded to your laptop computer. Motorola AirMobile Wireless Comm Client for cc:Mail directly implements the same filters: message priority, message date, message size, message subject, and message originator

In addition to supporting the cc:Mail Mobile filters for message download, Motorola AirMobile Wireless Comm Client for cc:Mail implements upload filters as well. With this feature, messages which you send (stored in your Outbox) are not transmitted wirelessly unless they pass your message priority and message size filters. These "rejected" messages will remain in your Outbox waiting to be sent via another communication medium (e.g., direct LAN connection).

AirMobile also provides extended granular filter attributes, allowing you to control the size of messages you will receive. These granular filters are configured via the Motorola AirMobile Wireless Comm Client interface. With the granular filters, you can also choose to download only specific portions of messages. These granularity filters provide you with greater control over the information downloaded to your laptop.

The following summarizes the granularity filter attributes defined in the Motorola AirMobile Wireless Comm Client for cc:Mail interface.

1. Truncate message size
2. Text attachments
3. File attachments



Configuring Message Filters with Lotus cc:Mail Mobile

Follow the instructions in this section to configure upload and download message filter criteria for Motorola AirMobile for cc:Mail using the Lotus cc:Mail Mobile filter setup.

For a full explanation of how to set filter settings within cc:Mail Mobile, please refer to the cc:Mail Mobile for Windows manual.

Below are basic instructions for setting filters within the cc:Mail Mobile application.

1. Load cc:Mail Mobile for Windows.

If Lotus cc:Mail Mobile isn't already loaded, load cc:Mail Mobile for Windows. Please refer to the Lotus cc:Mail Mobile for Windows User manual for details.

2. Choose Filters from the Mobile menu.

The Lotus cc:Mail Mobile for Windows Filter Dialog Box is displayed.

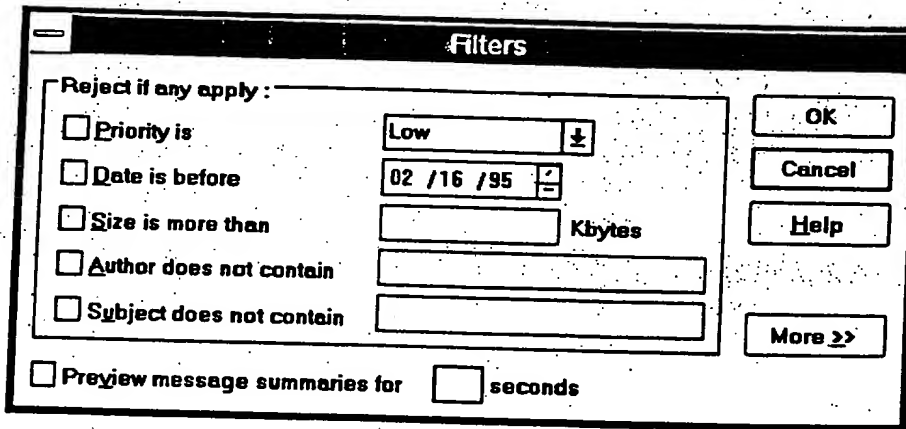


Figure 4-1: Lotus cc:Mail Mobile for Windows Filter Dialog Box

3. Select the filters that you want to apply to your messages, and enter the appropriate criteria for each filter as described below.

Note: *Priority and Size filters are applied to messages being uploaded as well as downloaded. Author, date and Subject filters are applied only to uploaded messages.*

Priority: AirMobile software filters messages by priority. Low rejects low-priority messages. Low or Normal rejects both low-and-normal priority messages. To receive all messages regardless of priority, do not check the filter priority box.

Date: AirMobile software filters messages by date sent. Messages will be rejected if sent before the date you specify. This option is useful if you haven't retrieved your messages for several days and want to receive only the most recent messages.

Use the arrow buttons to raise or lower the numbers representing the month, day and year.

Size: AirMobile software filters messages by size. AirMobile rejects all messages greater than the size you specify. Filtering by size helps you conserve space on your hard disk and minimize transmission costs.

Note: *Message size is calculated based on the hard-disk space required, not the transmission size. AirMobile implements compression algorithms in its wireless transport which significantly reduces transmission costs while increasing aggregate transmission speeds. AirMobile's compression typically yields at least 2:1 ratios. This means that a 4K message could be transmitted wirelessly in half the time than otherwise required.*

Author: AirMobile software filters messages by author or PostOffice. AirMobile rejects all messages except those sent by the person or postoffice that you specify.

Enter the first name, last name or both, or the name of the post office from which you want to receive messages. The text you enter doesn't have to be an exact match; if the text you enter matches any part of the Author field, the filter is applied.

Subject: AirMobile software filters incoming messages by subject. AirMobile rejects all messages except those whose subject does not contain the word or words you specify.

Enter a subject. The text you enter doesn't have to be an exact match; if the text you enter matches any part of the Subject field, the filter is applied.

Note: *Motorola AirMobile Wireless Comm Client for cc:Mail does not support cc:Mail Mobile rules definition.*

4. Choose OK when you finish selecting your filters and entering the criteria.

Note: *If you changed any filter settings, these changes will be automatically communicated to your AirMobile Communications Server for cc:Mail by sending a "profile change" message to your Comm Server. This enables intelligent download filtering to be performed at the Communication Server, eliminating transmission time and costs.*

Configuring AirMobile Granular Message Filters

Follow the instructions in this section to configure AirMobile Wireless granular message filters.

Motorola AirMobile Wireless for cc:Mail software supplements the cc:Mail Mobile message filter attributes with an extended set of granular filter attributes. These attributes are configured via the Motorola AirMobile Wireless Comm Client interface. The granular filters enable you to download only specific portions of messages. These granularity filters provide you with greater control over the information downloaded to your laptop.

The following summarizes the granularity filter attributes defined in the Motorola AirMobile Wireless Comm Client for cc:Mail interface.


1. Truncate message size
2. Text attachments
3. File attachments

1. Launch *AirMobile* Backgrounder.

In Windows, double-click the "*AirMobile* Backgrounder" icon



2. Run Profiler

Choose Profiler from the File pull-down menu or choose the Profiler icon  from the *AirMobile* Wireless for cc:Mail toolbar.

 The screenshot shows a Windows-style dialog box titled "- AirMobile Profiler Utility -". It has a menu bar with "File", "Edit", and "Help". Below the menu bar is a toolbar with several icons. The main area is titled "General Information" and contains several fields:

- User Name: Mitch Hansen
- User Password: (masked with asterisks)
- PostOffice Name: postoffice
- PostOffice Path: c:\ccmobile\ccdata3
- Msg Truncation Size: (empty field)
- Remote Radio ID: 15021455
- Local Radio ID: 15008149

 To the right of these fields are two radio buttons: "Enable" (selected) and "Disable". Below these are two checked checkboxes: "Text Attach" and "File Attach". At the bottom of the dialog, there is a status bar with "Ready" on the left and "NUM" on the right.

Figure 4-2 Motorola *AirMobile* Wireless Comm Client for cc:Mail Profile dialog

3. Set the granularity filters you want to apply ONLY to your downloaded messages, and enter the appropriate criteria for each filter as described below.

5 Troubleshooting

This section describes errors and problems which may occur during configuration or use of the Motorola *AirMobile* Wireless Comm Client for cc:Mail and common remedies to resolve each.

ERROR: Logon

Check the user name, password and path to your postoffice in the Profile Configuration Tool.

Messages not uploaded from the Outbox to the Communication Server

1. Check to make sure messages are in your Outbox.
2. Check the filter settings in cc:Mail Mobile to verify the message in your Outbox passes the priority and size filters.
3. Check through your log window to verify that you received a "receive complete" or "send complete" transaction within the last 20 minutes. If you have not sent or received any messages within the last 20 minutes and your Client application is running, exit and restart the application to force a full registration process.

Messages not downloaded from the Communication Server to cc:Mail Mobile

1. Check the filter settings in cc:Mail Mobile to verify your download filters in cc:Mail Mobile and the granularity filters in *AirMobile*.
2. Check through your log window to verify that you received a "receive complete" or "send complete" transaction within the last 20 minutes. If you have not sent or received any messages within the last 20 minutes and your Client application is running, exit and restart the application to force a full registration process.

Initialization: Out of sequence error

You can ignore this message. It simply identifies that multiple registration confirmation containers were received.

**Initialization Error
Failed to logon to radio network
Scheduler terminated**

1. Check your "*System Configuration*" to ensure you are using the correct communication interface (COM PORT)
2. Exit and restart the *AirMobile Wireless Comm Client* for cc:Mail application.
3. You may be in an area without wireless network coverage. Contact your network service provider and report this problem.

Text portions of message were not downloaded

Check the "*Text Attachments*" granular filter setting in your profile configuration tool. If you want to receive text attachments make sure this filter is checked.

File attachments on message were not downloaded

Check the "*File Attachments*" granular filter setting in your profile configuration tool. If you want to receive text attachments make sure this filter is checked.

Message says "(...Truncated by AirMobile)"

This indicates that the message passed all filter attributes except the message size filter and you specified a truncation value in the granular filter "*Truncation Size*" in the *AirMobile Profile Configuration* utility.

Error: Maximum User Licenses in use

You have attempted to add more users than allowed by your license agreement.

Red slash does not disappear from Network Status Icon

1. Check your "*System Configuration*" to ensure you are using the correct communication interface (COM PORT)
2. Exit and restart the *AirMobile Wireless Comm Client* for cc:Mail application.

3. You may be outside of wireless network coverage. Contact your network service provider and report this problem.

A 1.94 (or greater) version of MAILENG.DLL is required

Your cc:Mail Mobile software is using an old version of MAILENG.DLL which is not compatible with the Motorola *AirMobile* Wireless Comm Client for cc:Mail. You must upgrade your cc:Mail Mobile software.

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